

REMARKS

Election

The Examiner has restricted this invention. During a telephone conversation with the Examiner on 07/18/2008, a provisional election was made with traverse to prosecute the invention of species (ii) & (viii) and species (vi) & (ix) respectively, claims 1-10. Applicants affirm the election of species (ii) & (viii) and species (vi) & (ix) respectively of claims 1-10.

Specification

The disclosure is objected to by the Examiner because of the following informalities: The specification cites $\text{SiO}_2/2$ in page 10, line 12, this is not a conventional term in the art; if the applicant chooses to use his or her term, a definition of the term must be included in the disclosure. The Examiner states that appropriate correction is required.

Applicants have amended the specification in accordance with the suggestion of the Examiner. Applicants have deleted " $\text{SiO}_{2/2}$ units" and inserted -- $\text{SiO}_{4/2}$ units-- in its place. It is clear to one skilled in the art that this is not a conventional term in the art and that when no R Groups are attached to the Silicon atom, that the correct recitation of units is $\text{SiO}_{4/2}$ units. It is also clear from the specification that in every other instance where no R Groups are attached to the Silicon atom that the correct recitation of units is $\text{SiO}_{4/2}$. Thus Applicants believe the objection of the Examiner has been overcome and respectfully request that this objection be withdrawn.

Claim Rejections - 35 USC §112

Claims 1-10 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner states that the claims are directed to an organosiloxane compound containing an average of greater than two alkenyl groups per molecule comprising $\text{SiO}_2/2$ units; $\text{SiO}_2/2$ is not a conventional term in the art and no definition of the term is made in the specification.

This rejection has been rendered moot by the amendments to the Claims made by Applicants above. Applicants have deleted the species containing those units from the Claims and have cancelled Claims 3, and 6-10. Therefore Applicants respectfully request that this rejection be withdrawn.

Claim Rejections - 35 USC § 103

Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhu (US 6,509,423) in view of McGarry et al (US 6,660,395). The Examiner admits that Zhu does not explicitly teach the silicone composition (Y) of the instant claim. The Examiner admits that Modified Zhu does not teach a silicone coating composition comprising a first coating layer comprising the silicone composition (X) and a second coating layer in contact with coating layer (I) comprising of the silicone composition (Y). The Examiner argues that since the composition of modified Zhu is similar to that of McGarry et al and the composition of modified Zhu, among other advantages, cures to form a silicone product having low CTE, superior fracture toughness and low VOC (col.10, line 47- col.11, line 1), one of ordinary skill in the art would have incorporated the composition of modified Zhu into the fiber reinforced resin composite of McGarry et al, using the copolymer that serves as the silicone composition (X) of the instant claim as the matrix resin, and the copolymer having a lower portion of trifunctional siloxane group, that serves as the silicone composition (Y) of the instant claim as the interleaf, in order to have a composite with superior fracture toughness, low CTE and very low VOC, thereby among other things, avoiding the health, safety and environmental hazards associated with solvent-borne silicone compositions.

The Examiner admits that Zhu does not teach that the surface energy of composition (Y) is lower than composition (X), the surface energy of a composition is an inherent property of the composition; since the silicone compositions taught by modified Zhu meet the limitations of the corresponding compositions (X) and (Y) of the instant claim, the property the applicant claims is inherently present.

Regarding claim 2, the Examiner admits that modified Zhu does not teach the silicone composition wherein the hydrocarbon group free of aliphatic unsaturation for the organosiloxane compound, A'(i) of the silicone composition (Y) is independently selected from methyl and phenyl and the alkenyl group is vinyl. The Examiner argues that one of ordinary skill in the art would have chosen these groups based on the units of $\text{CH}_2=\text{CHMe}_2\text{SiO}_{1/2}$ units and PhSiO units (Example 6, col.15, lines 48-60) and other taught examples of the invention (col.5, lines 17-22).

Clearly, nowhere in Zhu is a second coating layer disclosed or suggested. Nowhere in Zhu is it taught that a second coating layer (Y in the instant invention) can be put into contact with the first coating layer to form a silicone composition. Nowhere in Zhu is such a silicone composition disclosed or suggested. There is no teaching in Zhu that would incentivize one skilled in the art to add an additional coating layer to the single coating layer of Zhu. Nowhere in Zhu is there evidence that a second coating layer contemplated by the inventors. Furthermore, nowhere in Zhu is a second composition (Y) disclosed or suggested. Nowhere in Zhu is a composition comprising two layers, wherein each layer is distinct from the other taught.

In addition, McGarry does not disclose or suggest either silicone composition (X) nor (Y) of the instant invention. Nowhere in McGarry are the two layer compositions of Claim 1 of the instant invention taught. Thus even if the Zhu and McGarry references are combined the instant invention as recited in Claims 1 and 2 is not arrived at.

Therefore Applicants conclude that an artisan having common sense at the time of the invention would not have reasonably considered a silicone coating composition comprising (I) a first coating layer comprising a silicone composition (X) and (II) a second coating layer in contact with the coating layer (I), the second coating layer comprising a silicone composition (Y) as currently claimed in Claims 1 and 2.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art MPEP §2143.03. All words in a claim must be considered in judging the patentability of that claim against the prior art MPEP §2143.03. If an independent claim is nonobvious under 35 U.S.C. §103, then any claim depending therefrom is nonobvious MPEP §2143.03.

Therefore, the applicants request that the rejection under 35 U.S.C. §103 be withdrawn and the claims allowed to issue.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zhu (US 6,509,423) in view of McGarry et al (US 6,660,395) as applied to claim 1 above, in further view of Fujiki et al (US 5,013,772). The Examiner's rejection of claim 3 has been rendered moot, as Applicants have cancelled this Claim.

The Examiner has rejected Claims 4-5, 7-8 and 10 under 35 U.S.C. 103(a) as being unpatentable over Zhu (US 6,509,423) in view of Nuzzo et al (US 6,805,809). The rejection of Claims 6-10 has been rendered moot as Applicants have cancelled those Claims.

Regarding claim 4, The Examiner admits that Zhu does not teach the silicone composition (Y) of the instant claim, but argues that since the list of organopolysiloxane resin and crosslinking agents taught by Zhu is limited, one of ordinary skill in the art would have formed different variations of the organopolysiloxane/crosslinking agent compositions, including one with the copolymer consisting essentially of R₂SiO_{1/2} units, R₁SiO_{1/2} units and R₂₂SiO_{2/2} units with PhSi(OSiMe₂H)₃ as the crosslinking agent, by routine experimentation; wherein the copolymer consisting essentially of R₂₃SiO_{1/2} units, R₁SiO_{3/2} units and R₂₂SiO_{2/2} units and the PhSi(OSiMe₂H)₃ crosslinking agent serve as the organosiloxane compound A'(i) and the organohydrogensiloxane compound B'(ii) of the instant claim respectively. The Examiner admits that modified Zhu does not teach a method of making an article of manufacture comprising the steps of the instant claim. The Examiner admits that modified Zhu does not teach a method of making an article of manufacture comprising the steps of:

- (I) applying the silicone composition (Y) to a substrate;
- (IV) applying the silicone composition (X) over the pattern of step (III).

Though modified Zhu does not teach a method of making an article of manufacture comprising the step of applying the silicone composition (Y) to a substrate to form a coating 1 to 500 micrometer thick, since modified Zhu teaches an example in which 2.8 micrometers of PDMS formed on the master (col.14, lines 65-66), one of ordinary skill in the art would have formed the silicone composition (Y) on the master at the same thickness.

The Examiner admits that modified Zhu does not teach that the surface energy of cured composition (Y) is lower than the cured composition (X), the surface energy of a composition is an inherent property of the composition; since the silicone compositions taught by modified Zhu meet the limitations of the corresponding compositions (X) and (Y) of the instant claim, the Examiner argues that the property the applicant claims is inherently present.

Regarding claim 5, the Examiner admits that modified Zhu does not teach the method of making an article of manufacture wherein the hydrocarbon group free of aliphatic unsaturation for the organosiloxane compound, A'(i) of the silicone composition (Y) is independently selected from methyl and phenyl and the alkenyl group is vinyl, the Examiner argues that one of ordinary skill in the art would have chosen these groups based on the units of $\text{CH}_2=\text{CHMe}_2\text{SiO}_{1/2}$ units and $\text{PhSiO}_{1/2}$ units (Example 6, col.15, lines 48-60) and other taught examples of the invention (col.5, lines 17-22).

Applicants believe the compositions of Zhu have been distinguished from the instant invention per the discussion above which is hereby incorporated by reference. Furthermore, there is no teaching in Zhu of the critical steps in Claim 4 (step (III) forming a *pattern* on top of the product of step (II); and step (IV) applying a silicone composition (X) over the *pattern* of step (III)). Nowhere in Zhu are these steps even remotely referred to. Applicants do not see any evidence within the disclosure of Zhu that suggests that the inventors contemplated using their composition to create an article of manufacture containing a pattern within it.

Furthermore, nowhere in Nuzzo et al. are the silicone compositions (X) and (Y) disclosed or suggested. In addition, nowhere in Nuzzo et al. do the inventors disclose the recitation of steps as claimed in Claim 4 (i.e. the steps of: (I) applying a silicone composition (Y) to a substrate to form a coating 1 to 500 micrometer thick; (II) curing silicone composition (Y); (III) forming a pattern on top of the product of step (II); (IV) applying a silicone composition (X) over the pattern of step (III); and (VI) separating the cured silicone composition (X) of step (V) from the substrate. Therefore even if these two references are combined the instant invention as specifically delineated in Claim 4 is not arrived at.

Therefore Applicants conclude that an artisan having common sense at the time of the invention would not have reasonably considered a method of making an article of manufacture comprising the steps of: (I) applying the silicone composition (Y) to a substrate to form a coating 1 to 500 micrometer thick; (II) curing the silicone composition (Y); (III) forming a pattern on top of the product of step (II); (IV) applying a silicone composition (X) over the pattern of step (III); and (VI) separating the cured silicone composition (X) of step (V) from the substrate as currently claimed in Claims 4 and 5.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art MPEP §2143.03. All words in a claim must be considered in judging the patentability of that claim against the prior art MPEP §2143.03. If an independent claim is nonobvious under 35 U.S.C. §103, then any claim depending therefrom is nonobvious MPEP §2143.03.

Therefore, the applicants request that the rejection under 35 U.S.C. §103 be withdrawn and the claims allowed to issue.

The Applicants hereby petition for a two month extension of time. You are authorized to charge deposit account 04-1520 for any fees necessary to maintain the pendency of this application. You are authorized to make any additional copies of this sheet needed to accomplish the purposes provided for herein and to charge any fee for such copies to deposit account 04-1520.

Respectfully Submitted,
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